

IN THE SPECIFICATION

Please replace the existing paragraph [0014] with replacement paragraph [0014] as follows:

[0014] FIG. 2 shows the discriminating feature analysis (DFA) of face and nonface classes. (a) The first image is the mean face, the second and the third images are its 1-D ~~Harr~~-Haar wavelet representation, and the last two bar graphs are its amplitude projections. (b) The mean nonface, its 1-D ~~Harr~~-Haar wavelet representation, and its amplitude projections. Note that the images and projections in (b) resemble their counterparts in (a) due to the fact that the nonface samples lie close to the face class.

Replace existing paragraph [0017] with replacement paragraph [0017] as follows:

[0017] This training data is utilized at block 103 in order to compute the discriminating feature analysis (DFA) vector of the training images. The DFA vector is a novel featured vector with enhanced discriminating power for face detection. The DFA representation, shown for example in FIG. 2 hereof, combines the input image, its 1-D ~~Harr~~-Haar wavelet representation, and its amplitude projections. The DFA representation of the training images may be calculated from Equation 6 in the provisional application incorporated herein by reference. The derivation of such equation is shown at pages 5-6 of said provisional. The output of Equation 6 represents the combination of the image, its 1-D ~~Harr~~-Haar wavelet representation, and its amplitude projections.

Replace existing paragraph [0019] with replacement paragraph [0019] as follows:

[0019] The modeling of the face and non-face classes is represented generally by operational block 105 in FIG. 1. The conditional probability density function of the face class can be estimated using a single multivariate ~~Gaussian~~-Gaussian distribution, rather than up to six ~~Gaussian~~-Gaussian

clusters as utilized by most prior art systems. The monitoring of the face class is accomplished in accordance with Equation 13 in the incorporated provisional application. That equation can be used to model the face class.

Replace existing paragraph [0025] with replacement paragraph [0025] as follows:

[0025] It is noted that the DFA vector shown in FIG. 2 combines the input image, its 1-D ~~Harr~~Haar wavelet representation, and its amplitude projections. The DFA vector may be useful in other image processing and detection systems, and is not limited to the face detection algorithms of the present invention. It is also noted that the empirically derived parameters discussed above may vary from system to system, and are not limited to those set forth herein or in the incorporated provisional. Various modifications or additions will be apparent to those of skill in the art, and such variations are intended to be covered by the appended claims.